

Thunder SSLi Physical Appliance Specifications

Performance	Thunder 940 SSLi	Thunder 1040-11 SSLi	Thunder 3350S SSLi	Thunder 4440S SSLi
SSLi Throughput	0.5 Gbps	1.5 Gbps	5.5 Gbps	8 Gbps
SSLi CPS	RSA: 500 ECDHE:300	RSA: 4K ECDHE: 3K	RSA: 20K ECDHE: 10K	RSA: 22K ECDHE: 10K
SSLi Concurrent Sessions	30K	100K	300K	400K
SSL Bulk Throughput ⁵	1 Gbps	9 Gbps	30 Gbps	25 Gbps
Network Interface				
1 GE (BASE-T)	5	1 + 4 (Bypass)	6	0
1 GE Fiber (SFP)	0	0	2	0
1/10 GE Fiber (SFP+)	4	4 ⁶	8 + 4 ⁶	24
1/10 GE Fiber (Fixed)	0	2 (Optical Bypass) ¹⁴	0	0
40 GE Fiber (QSFP+)	0	0	0	4
100 GE Fiber (QSFP28)	0	0	0	0
Management Ports	Ethernet Mgmt Port, RJ-45 Console Port			Ethernet Mgmt Port, RJ-45 Console Port, Lights Out Management
Hardware Specifications				
Processor	Intel Communications Processor	Intel Communications Processor	Intel Xeon 14-core	Intel Xeon 6-core
Memory (ECC RAM)	8 GB	16 GB	64 GB	32 GB
Storage	SSD	SSD	SSD	SSD
Hardware Acceleration	Software	Software	Software	2 x FTA-4
TLS/SSL Security Acceleration	N/A	Hardware	Hardware	Hardware
Dimensions (inches)	1.75 (H) x 17.5 (W) x 17.25 (D)	1.75 (H) x 17.5 (W) x 17.25 (D)	1.75 (H) x 17.5 (W) x 18(D)	1.75 (H) x 17.5 (W) x 30 (D)
Rack Units (mountable)	1U	1U	1U	1U
Unit Weight	14 lbs 16 lbs (RPS)	15 lbs 17 lbs (RPS)	18 lbs	32.5 lbs
Power Supply (DC option available)	Single 750W ³	Single 750W ³	Dual 750W RPS	Dual 1100W RPS
	80 Plus Platinum efficiency, 100 - 240 VAC, 50 - 60 Hz			
Power Consumption (typical/max) ¹²	60W / 80W	80W / 110W	175W / 222W	360W / 445W
Heat in BTU/hour (typical/max) ¹²	205 / 273	273 / 376	598 / 758	1,229 / 1,519
Cooling Fan (front-to-back airflow)	Removable Fans	Removable Fans	Hot Swap Smart Fans	Hot Swap Smart Fans
Operating Ranges	Temperature 0° - 40° C Humidity 5% - 95%			
Regulatory Certifications	FCC Class A, UL, CE, UKCA, CB, VCCI, KCC, BSMI, RCM RoHS	FCC Class A, UL, CE, UKCA, CB, VCCI, KCC, BSMI RoHS	FCC Class A, UL, CE, UKCA, CB, VCCI, KCC, BSMI, RCM RoHS, FIPS 140-2 ^{1*}	FCC Class A, UL, CE, UKCA, CB, VCCI, KCC, BSMI, RCM RoHS
Standard Warranty	90-day Hardware and Software			

Thunder SSLi Physical Appliance Specifications (cont.)

Performance	Thunder 5440S SSLi	Thunder 5840S SSLi	Thunder 5840-11S SSLi	Thunder 6655S SSLi
SSLi Throughput	16 Gbps	20 Gbps	25 Gbps	36 Gbps
SSLi CPS	RSA: 35K ECDHE: 20K	RSA: 50K ECDHE: 25K	RSA: 50K ECDHE: 28K	RSA: 50K ECDHE: 35K
SSLi Concurrent Sessions	800K	1 Million	2 Million	2 Million
SSL Bulk Throughput ⁵	45 Gbps	55 Gbps	55 Gbps	72.5 Gbps
Network Interface				
1 GE (BASE-T)	0	0	0	0
1 GE Fiber (SFP)	0	0	0	0
1/10 GE Fiber (SFP+)	24	24	48	0
1/10 GE Fiber (Fixed)	0	0	0	0
40 GE Fiber (QSFP+)	4	4	0	0
100 GE Fiber (QSFP28)	0	0	4	16
Management Ports	Ethernet Mgmt Port, RJ-45 Console Port, Lights Out Management			
Hardware Specifications				
Processor	Intel Xeon 12-core	Intel Xeon 18-core	Intel Xeon 18-core	Intel Xeon 28-core
Memory (ECC RAM)	64 GB	64 GB	128 GB	192 GB
Storage	SSD	SSD	SSD	SSD
Hardware Acceleration	2 x FTA-4	2 x FTA-4	2 x FTA-4	FTA-5, SPE
TLS/SSL Security Acceleration	Hardware	Hardware	Hardware	Hardware
Dimensions (inches)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)	2.625 (H) x 17.5 (W) x 30 (D)
Rack Units (mountable)	1U	1U	1U	1.5U
Unit Weight	32.5 lbs	32.5 lbs	34.3 lbs	39 lbs
Power Supply (DC option available)	Dual 1100W RPS	Dual 1100W RPS	Dual 1500W RPS	Dual 1500W RPS
	80 Plus Platinum efficiency, 100 - 240 VAC, 50 - 60 Hz			
Power Consumption (typical/max) ²	360W / 445W	375W / 470W	550W / 760W	667W / 856W
Heat in BTU/hour (typical/max) ²	1,229 / 1,519	1,280 / 1,604	1,877 / 2,594	2,276 / 2,921
Cooling Fan (front-to-back airflow)	Hot Swap Smart Fans			
Operating Ranges	Temperature 0° - 40° C Humidity 5% - 95%			
Regulatory Certifications	FCC Class A, UL, CE, UKCA, CB, VCCI, KCC, BSMI, RCM RoHS, FIPS 140-2*	FCC Class A, UL, CE, UKCA, CB, VCCI, KCC, BSMI, RCM RoHS, FIPS 140-2*	FCC Class A, UL, CE, UKCA, CB, VCCI, BSMI, RCM RoHS	FCC Class A, UL, CE, UKCA, CB, VCCI, BSMI, RCM RoHS, FIPS 140-2 ¹⁺
Standard Warranty	90-day Hardware and Software			

Thunder SSLI Physical Appliance Specifications (cont.)

Performance	Thunder 7440S SSLI	Thunder 7440-11S SSLI	Thunder 7655S SSLI
SSLi Throughput	25 Gbps	25 Gbps	72 Gbps
SSLi CPS	RSA: 45K ECDHE: 20K	RSA: 45K ECDHE: 20K	RSA: 100K ECDHE: 70K
SSLi Concurrent Sessions	2 Million	2 Million	4 Million
SSL Bulk Throughput ⁵	75 Gbps	75 Gbps	145 Gbps
Network Interface			
1 GE (BASE-T)	0	0	0
1 GE Fiber (SFP)	0	0	0
1/10 GE Fiber (SFP+)	48	48	0
1/10 GE Fiber (Fixed)	0	0	0
40 GE Fiber (QSFP+)	4	0	0
100 GE Fiber (QSFP28)	0	4	16
Management Ports	Ethernet Mgmt Port, RJ-45 Console Port, Lights Out Management		
Hardware Specifications			
Processor	2 x Intel Xeon 18-core	2 x Intel Xeon 18-core	2 x Intel Xeon 28-core
Memory (ECC RAM)	128 GB	128 GB	384 GB
Storage	SSD	SSD	SSD
Hardware Acceleration	3 x FTA-4	3 x FTA-4	2 x FTA-5, SPE
TLS/SSL Security Acceleration	Hardware	Hardware	Hardware
Dimensions (inches)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)	2.625 (H) x 17.5 (W) x 30 (D)
Rack Units (mountable)	1U	1U	1.5U
Unit Weight	36 lbs	37 lbs	44.2 lbs
Power Supply (DC option available)	Dual 1100W RPS	Dual 1500W RPS	Dual 1500W RPS
	80 Plus Platinum efficiency, 100 - 240 VAC, 50 - 60 Hz		
Power Consumption (typical/max) ¹²	690W / 820W	820W / 950W	1,121W / 1,3001W
Heat in BTU/hour (typical/max) ¹²	2,355 / 2,798	2,798 / 3,242	3,826 / 4,436
Cooling Fan (front-to-back airflow)	Hot Swap Smart Fans		
Operating Ranges	Temperature 0° - 40° C Humidity 5% - 95%		
Regulatory Certifications	FCC Class A, UL, CE, UKCA, CB, VCCI, KCC, BSMI, RCM RoHS	FCC Class A, UL, CE, UKCA, CB, VCCI, BSMI, RCM RoHS, FIPS 140-2*	FCC Class A, UL, CE, UKCA, CB, VCCI, BSMI, RCM RoHS, FIPS 140-2 ^{1†}
Standard Warranty	90-day Hardware and Software		

Hardware specifications and performance numbers are subject to change without notice, and may vary depending on configuration and environmental conditions. As for network interface, it's highly recommended to use A10 Networks qualified optics/transceivers to ensure network reliability and stability.

All SSLI products are also available in CFW license. For SWG use cases (e.g., application-aware firewall and IP threat intelligence), CFW product line is required.

*1 Tested in single appliance SSLI deployment with maximum SSL option. Cipher "TLS_RSA_WITH_AES_128_CBC_SHA256" with RSA 2K keys are used for RSA cases. "TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256" with EC P-256 and RSA 2K keys are used for ECDHE case.

*2 With base model. Number varies by SSL model | *3 Optional RPS available | *4 Fixed SFP+ optical ports with dual rate (10GBASE-SR and 1000BASE-SX)

*5 Total SSL (transaction) capacity with maximum SSL option | *6 10Gbps speed only | ^ Certification in process | + FIPS model must be purchased

A10 Thunder on Dell Technologies OEM Solution Bundle Specifications

Single Service Platform (SSP) Specifications

The SSP range consists of A10's cloud-ready software and purpose-built Dell Technologies hardware, with an inclusive license³ that has the capabilities of delivering Application Delivery Controller (ADC), SSL Insight (SSLi), and Carrier Grade Networking (CGN) solutions along with an expanded feature set of A10 capabilities.

Thunder SSLi Performance ^{*1}	Dell Technologies R640		Dell Technologies R740	
	10GE NIC Model	100GE NIC Model	10GE NIC Model	100GE NIC Model
SSL Insight Throughput	8.5 Gbps	12.5 Gbps	16.5 Gbps	30 Gbps
SSL Insight CPS (RSA / ECDHE)	28.5K / 13.5K	28.5K / 14.5K	30K / 18.5K	30K / 18.5K
SSL Insight Concurrent Sessions	3 Million	3 Million	3 Million	3 Million
Network Interfaces				
1 GE (BASE-T)	2	2	2	2
1/10 GE Fiber (SFP+)	6	2	10	10
100 GE Fiber (QSFP28)	0	2	0	4
Hardware Specifications				
Processor	2 x Intel Xeon 20-core		2 x Intel Xeon 20-core	
Memory	192 GB		192 GB	
Storage	2 x SSD		2 x SSD	
TLS/SSL Security Processor	2 x Security card (PCIe)		2 x Dual-chip Security Card (PCIe)	
Power Supply	Dual 750W Power Supply		Dual 2000W Power Supply	

Multi-tenant Virtual Platform (MVP) Specifications

A10 Thunder Multi-tenant Virtual Platform (MVP) on Dell Technologies is an advanced platform enabling multiple virtual instances or services on a single platform, with inclusive license² that has the capabilities of delivering Application Delivery Controller (ADC), SSL Insight (SSLi), and Carrier Grade Networking (CGN) solutions along with an expanded feature set of A10 capabilities.

Performance with SSL Insight ^{*1, *3}	Dell Technologies R640		Dell Technologies R740	
	10GE NIC Model	100GE NIC Model	10GE NIC Model	100GE NIC Model
SSL Insight Throughput	6.8 Gbps	15.5 Gbps	13.8 Gbps	32.5 Gbps
SSL Insight CPS (RSA / ECDHE)	12.5K / 7K	55K / 32K	27K / 14K	68.5K / 52.5K
SSL Insight Concurrent Sessions	58K	680K	118K	680K
Network Interfaces				
1 GE (BASE-T)	2	2	2	2
1/10 GE Fiber (SFP+)	6	2	10	10
100 GE Fiber (QSFP28)	0	2	0	4
Hardware Specifications				
Processor	2 x Intel Xeon 20-core		2 x Intel Xeon 20-core	
Memory	192 GB		192 GB	
Storage	2 x SSD		2 x SSD	
TLS/SSL Security Processor	2 x Security card (PCIe)		2 x Dual-chip Security Card (PCIe)	
Power Supply	Dual 750W Power Supply		Dual 2000W Power Supply	

*1 SSLi performance is tested in L3, dual-partition mode deployment, with RSA (2K keys) cipher "TLS_RSA_WITH_AES_128_CBC_SHA" and ECDSA (EC P-256) cipher "TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA"

*2 A10 Thunder on Dell Technologies OEM bundle solutions are licensed under the Convergent Firewall (CFW) license. Check with your A10 Networks sales representative for the latest information on full feature testing and validation.

*3 All Thunder MVP performance specifications are aggregate number that use the following VM profiles:

- R640 10GE NIC model is tested with 1 VM and R740 10GE NIC model is with 2 VMs. Each vThunder is assigned with 8 CPUs, 16 GB memory, 30 GB storage, 8 SSL VFs.
- Both R640 and R740 100GE NIC models are tested with 4-VM profile (16 vCPUs, 32 GB memory, 30 GB storage, 16 SSL VFs assigned on each vThunder)

Thunder SSLi Virtual Appliance Specifications

vThunder SSLi	
Supported Hypervisors	VMware ESXi (VMXNET3, SR-IOV, PCI Passthrough), KVM QEMU (VirtIO, OvS with DPDK, SR-IOV, PCI Passthrough), Microsoft Hyper-V* on Windows Server
Hardware Requirements	See Installation Guide
Standard Warranty	90-day Software

Bandwidth Licenses	Lab	200 Mbps	1 Gbps	4 Gbps	8 Gbps
VMware ESXi	●	●	●	●	●
KVM	●	●	●	●	●
Microsoft Hyper-V	●	●	●	●	● ⁺

+ Hyper-V is supported in ACOS 4.x and 5.x release. 8 Gbps license is not recommended.

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